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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,685	02/03/2002	Aleksandar Susnjar		3106
30379	7590	03/26/2004		
			EXAMINER	
			VERBRUGGE, KEVIN	
			ART UNIT	PAPER NUMBER
			2188	12
DATE MAILED: 03/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/683,685	SUSNJAR, ALEKSANDAR
	Examiner Kevin Verbrugge	Art Unit 2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 28 February 2004.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 1-15 and 19 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 16-18 is/are rejected.

7) Claim(s) 16 and 17 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restriction***

Applicant's election with traverse of Group IV (claims 16-18) in Paper No. 10 filed by fax on 2/28/04 is acknowledged. The traversal is on the ground(s) that the various groups are inseparable. This is not found persuasive because each group of claims does not require any other group of claims. Each of the inventions has separate utility such as in systems that don't have the other inventions. None of the groups requires any of the other groups, proving that they are independent subcombinations.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 1-15 and 19 which are drawn to an invention nonelected with traverse in Paper No. 10. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Objections***

Claims 16 and 17 are objected to because of the following informalities:

In claim 16, line 1, --a-- should be inserted after "of" to correct a grammatical error.

In claim 17, lines 3-4, "protocol is/are" should be deleted and reinserted after "command/communication" to make the language correct and consistent with claim 16.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, line 1, "or other" is unclear. What other hard disk drive system is being claimed other than the one in claim 16? The phrase "or other" should be removed.

In claim 18, lines 4 and 5, the phrase "limited or not limited" has no meaning. Everything is either limited or not limited. The phrases should be deleted.

In claim 18, lines 4 and 5, "supporting two-way communication only with one host or client at a time" conflicts with the language in lines 5 and 6, "supporting the two-way communication with two different hosts/clients at a time only." Either the communication is supported with only one host or with two hosts only. It cannot be both. It is not clear what Applicant is attempting to claim.

Correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,496,899 to DeMoney.

Regarding claim 16, DeMoney's device is capable of a plurality of simultaneous reads and/or writes since it includes RAID storage systems shown in Figs. 2, 3, 4, 7, and 10. RAID storage systems are commonly capable of a plurality of simultaneous reads and/or writes to achieve high data transfer bandwidth. There may only be one read or write per disk unit, but each disk unit in the RAID storage system reads and/or writes at the same time, meeting the language of the claim which says that the "hard disk drive system" is capable of the simultaneous reads and/or writes. Each RAID storage system in DeMoney's disclosure is a "hard disk drive system". If Applicant desires to limit the invention to a single hard disk drive, then the word "system" must be removed from the claim. However, this amendment to the claim changes the scope of the claim and would require further consideration and search and would therefore not be enterable as a matter of right after this final rejection. The case would have to be continued (with a Request for Continued Examination) for this amendment to be considered.

DeMoney's device performs the claimed optimizing of the disk drive system by optimizing the movement of the head arms, as claimed. He discusses this in column 2,

lines 41-64, column 3, lines 7-23 and line 57 through column 4, line 7, column 12, lines 26-62, and column 16, lines 34-51.

Regarding claim 17, DeMoney's device accepts a plurality of commands, queues them, and optimizes the operation of the disk drives by reordering the execution of the commands as claimed (see the passages cited above).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,496,899 to DeMoney.

Regarding claim 18, DeMoney's device clearly receives new commands and new data and sends requested data back to the host or client.

However, DeMoney does not disclose that these things happen simultaneously.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to receive the new commands and new data simultaneously to simplify data reception processes. Data and commands were commonly sent together to reduce the complexity of matching up data and commands sent separately.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to operate simultaneous two-way communication (where commands and data are received at the same time that requested data is sent back) to increase the data communication rate in the system over a one-way communication system.

DeMoney does not disclose either of these techniques (receiving data with commands, and receiving data with commands at the same time as requested data goes back), but neither does he preclude their use.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use these techniques in his device for the reasons stated above.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

This action is a **final rejection** and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee of \$160.00 US.

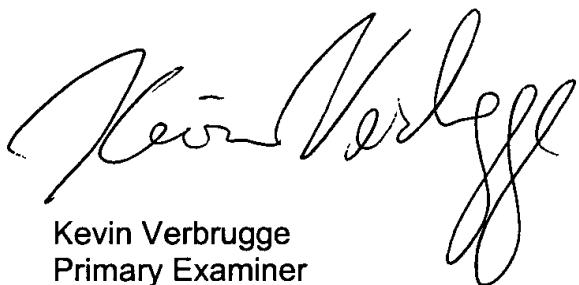
If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing a good and sufficient reasons why they are necessary and why they were not presented earlier.

A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

Any inquiry concerning a communication from the Examiner should be directed to the Examiner by phone at (703) 308-6663.

Any response to this action should be labeled appropriately (serial number, Art Unit 2188, and After-Final, Official, or Draft) and mailed to Commissioner for Patents, Washington, D.C. 20231, faxed to (703) 872-9306, or delivered to Crystal Park 2, 2121 Crystal Drive, Arlington, VA, 4th Floor Receptionist.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.



Kevin Verbrugge  
Primary Examiner  
3/19/04